

## ABSTRACT

Beta-amyloid peptide ( $\beta$ A) is a major fibrillar component of neuritic plaques in Alzheimer's disease brains and is related to the pathogenesis of the disease.  $\beta$ A generation depends on proteolytic cleavage of the amyloid precursor protein (APP). The present invention is a new procedure to easily and rapidly obtain the APP constructs for the expression of full-length recombinant APP protein. This procedure consists of: 1) cloning human APP gene based on the reverse transcription (RT) and the polymerase chain reaction (PCR); and 2) performing the APP constructs using the commercially available expression vectors, a/ pFastBac HTb and the pBlueBacHis2 A transfer vectors for the purpose of obtaining recombinant human APP in insect cells; and b/ pET-28a (+) transfer vector for the purpose of obtaining recombinant human APP in bacteria.